Ownership matrix

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1.0 PURPOSE AND SCOPE

(7.1.1, 7.1.2.a, 7.1.2.b, 7.1.2.c, 7.1.2.d, 7.1.2.e, 7.1.3.a, 7.1.3.b, 7.1.3.c, 7.1.3.d, 7.1.3.e)

This procedure establishes the process for identifying, prescribing and maintaining personal protective equipment (PPE) to protect employees and visitors from injury due to absorption or physical contact hazards commonly associated with process or environment relating to the following body areas: eye and face, head, foot, hand, and general clothing. Appropriate dress and footwear are required at all times.

This program applies to all Tank Farm Contractor activities where PPE may be required. The following requirement areas are not within the scope of this procedure (see referenced sections):

- Respiratory protection (TFC-ESHQ-S_IH-C-05)
- Electrical protective devices (TFC-ESHQ-S-STD-03)
- Fall-protection (TFC-ESHQ-S-STD-26)
- Hearing protection (TFC-ESHQ-IH-STD-06)
- Heat Stress (TFC-ESHQ-S_IH-C-07**)**
- Area posting (TFC-ESHQ-S-STD-18)
- Radiological Control Manual (HNF 5183 Article 325, Appendix 3C)
- Specialized activities involving radiation and chemical contamination, or emergency activities
- Anti-contamination clothing or ALARA devices (e.g., lead-lined gloves, beta face shields) are not controlled by this procedure but their use must be coordinated between RadCon and Industrial Safety to reduce the introduction of other hazards (e.g., heat stress, necessary body movements to prevent injury)
- Process for identifying hazards and documenting the controls (TFC-ESHQ-S_SAF-C-02)
- Process for communicating hazards and controls (TFC-OPS-MAINT-C-02).

2.0 IMPLEMENTATION

This procedure is effective on the date shown in the header.

3.0 RESPONSIBILITIES

3.1 Managers/Supervisors

1. Eliminate or control hazards through process/material substitution, engineering, or administrative actions (in that order of preference) prior to relying on the use of PPE as the protective method.

2. Ensure new and reusable PPE is maintained in clean and sanitary condition and stored in such a manner as to provide protection from deterioration, damage and accumulation of dust, dirt, and animal infestation.

3. Ensure employees are trained in proper use, purpose, maintenance and limitations of PPE. Provide employee re-training:

   - When there is a change in work function/task that renders the current training obsolete
   - When introducing new types of PPE for the hazard
   - When an employee demonstrates an inability to properly use prescribed PPE.

4. Provide employees with all PPE required for work environment.

5. Immediately remove from service and properly dispose of or repair all damaged or defective PPE.

6. Ensure that dress requirements and prescribed PPE are worn as required. PPE shall NOT be modified from original manufactured condition.

7. Reassess prescribed PPE for applicability:

   a. If the hazards of a particular work activity change (e.g., new process/equipment introduced, change in hazardous material usage).

   b. If trend analysis identifies a pattern in PPE-related accidents or exposures.

8. If the level of PPE is found to be inadequate for site conditions, stop work until an evaluation is performed.

3.2 Safety and Health Professionals

1. Assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of PPE.

2. If hazards are present, select the types of PPE that will protect the affected employees from the hazards identified in the hazard assessment.

3. Select PPE in accordance with the requirements listed in Section 4.1 and the guidance in Attachments A and B. Where PPE is necessary to address both chemical and radiological concerns, the Safety and Health and Radiological Control professionals will jointly determine requirements through the work planning process.

4. PPE selection will be based on the following requirements:

   - Appropriate for the anticipated hazard
   - Safe in design and construction
   - Properly fitted to each affected employee

- ANSI-approved (required where applicable). Examples of these are safety eyewear and safety shoes. Approval can be verified by a distinct code mark or etching on the item in question.

- Favorable published product performance characteristics.

5. Document selected PPE in the Work Standards.

6. Ensure Personal Protective Equipment is properly worn

7. Review engineering design or facility modifications for changes in PPE, as appropriate.

3.3 Employees

1. Obtain PPE prescribed for a given work activity.

2. Inspect prescribed PPE for defects/damage that would compromise its function.

3. Return defective/damaged PPE to manager/supervisor immediately for repair or replacement.

4. Wear PPE in accordance with training and procedural guidelines as required for protection against identified hazards.

5. Maintain PPE in good condition.

6. Do not don any PPE you are not trained and/or qualified to wear.

4.0 PROCEDURE

4.1 Working with PPE

Dress for the nature of the work assignments, exposure to the general work environment, and expected climate conditions. The following minimum dress requirements are established, with the understanding that PPE identified as part of the Job Hazard Analysis process takes precedence over these requirements. Additional requirements may be evoked by weather conditions, such as use of safety goggles for high wind conditions (TF-AOP-008).

1. Office/administrative work (regardless of location): Dress appropriate for the work activity and environmental conditions; no specific safety requirements (see Attachment A, Section 5.1.2 for specific footwear prohibitions for these areas).

   NOTE: Performing maintenance activities or material handling activities are not administrative activities, even when performed in office buildings. PPE appropriate for these activities shall be worn as specified in work instructions or the Worksite Hazard Analysis.

2. Tank farms, warehouses, maintenance shops, construction areas, and equivalent areas where operations and/or maintenance work is being performed: Sleeved shirt, long pants, protective footwear and safety glasses with side shields. In addition, long hair and loose fitting clothing shall be restrained around moving machinery. See Attachment A, Section 5.0 for specific hazardous condition requirements when protective footwear is required.

   NOTE 1: Contact lenses may be worn but are not a substitute for eye protective devices.

   NOTE 2: Depending on job assignment and work conditions, wearing rings or watches may be prohibited. Jewelry can catch and cause injuries when climbing, handling materials, or working with machinery.

3. Designated work areas where cranes are operating: Same as tank farms and maintenance shops with the exception that hard hats are required. Other PPE, such as hearing protection, is also required in close proximity to the crane and as specified in work control documents.

4. Laboratories and laboratory complex: Dress appropriate for the work activity. Comply with protective clothing requirements that are established in the appropriate analytical procedure, Worksite Hazard Analysis, or specified in the laboratory chemical hygiene plan.

   When working with, or handling hazardous chemicals, protection of exposed skin on legs, arms, and hands is required.

5. Management Inspections/Visitor Tours: Dress should be appropriate for the work activity occurring in the area being inspected or toured. The minimum field PPE is safety glasses with side shields and required footwear as defined in Attachment A.

Safety and Health Professional

1. Select PPE in accordance with the requirements listed in Section 4.1 and the guidance contained in Attachment A and B.

   NOTE: The selected PPE is documented in accordance with the processes described in TFC-ESHQ-S_SAF-C-02.

Managers/ Supervisors

2. Provide training to each employee who is required to use PPE. Each employee shall be trained to know at least the following:

   - The necessity of the PPE
   - The identification of the required PPE
   - The correct ways to don, doff, adjust, and wear the PPE
   - The limitations of the PPE
   - The proper care, use, inspection/maintenance, life span.

   a. Provide employee re-training:

- When there is a change in work function/task that renders the initial training obsolete
- When introducing new types of PPE for the hazard
- When employee proficiency appears to be diminishing.

b. Ensure workers are using PPE properly and that individuals comply with work PPE requirements for the work area.

c. Correct behaviors and coach individuals relative to inappropriate use or failure to wear correct PPE.

Employee

3. Demonstrate an understanding of the training, and the ability to use PPE properly, before being allowed to perform work requiring the use of PPE.

4. Receive/obtain PPE prescribed for a given work activity.

5. Wear prescribed PPE on the job in accordance with the work area posting, WHA, work instruction, or procedure requirements, and pre-job briefing and management expectations.

6. Bring PPE deficiencies when noticed in the field to a co-worker's attention, if it involves an immediate danger, and inform supervision of the situation.

5.0 DEFINITIONS

Hazardous conditions. Consists of the following: motion capable of causing impact, injury, or entanglement, high temperatures, chemicals, light radiation, falling or rolling/pinching objects, sharp objects, flying particles/dust, electrical hazards, and co-located work activity.

Personal protective equipment. Equipment and clothing used to protect the eyes, face, head, foot, and hand from injury due to absorption or physical contact hazards commonly associated with work activities and the work environment. Types of PPE are defined in Attachment A. Levels of PPE are defined in Attachment B.

Minimum dress requirements. Sleeved shirt (over the shoulder), long pants, appropriate footwear and safety glasses with side shields are required for any work other than administrative. Additional protective equipment may be required depending on job task, location, and/or environmental conditions.

6.0 RECORDS

No records are generated in the performance of this procedure.

7.0 SOURCES

7.1 Requirements

1. 10 CFR 851, "Worker Safety and Health Program"

2. 29 CFR 1910, Subpart I, "Personal Protective Equipment." (S/RID)
   a. 1910.132, "General requirements."
   b. 1910.133, "Eye and face protection."
   c. 1910.135, "Head protection."
   d. 1910.136, "Foot protection."
   e. 1910.138, "Hand protection."

3. 29 CFR 1926, Subpart E, "Personal Protective and Life Saving Equipment." (S/RID)
   a. 1926.28, "Personal protective equipment."
   b. 1926.95, "Criteria for personal protective equipment."
   c. 1926.96, "Occupational foot protection."
   d. 1926.100, "Head protection."
   e. 1926.102, "Eye and face protection."
   f. 1926.107, "Definitions applicable to this subpart."

7.2 References

1. ANSI Z41, "Personal Protection - Protective Footwear."

2. ANSI Z87.1, "Practice For Occupational and Educational Eye and Face Protection."

3. ANSI Z89.1, "Safety Requirements For Industrial Head Protection."

4. HNF 5183, Article 325, Appendix 3C, "Radiological Control Manual."

5. TFC-BSM-CP_CPR-C-01, "Purchasing Card (P-Card)."

6. TFC-BSM-IRM_DC-C-02, "Records Management."

7. TFC-ESHQ-IH-STD-06, "Hearing Conservation Program."

8. TFC-ESHQ-S_SAF-C-02, "Job Hazard Analysis."

9. TFC-ESHQ-S-STD-18, "Safety Signs, Tags, Barriers, and Color Coding."

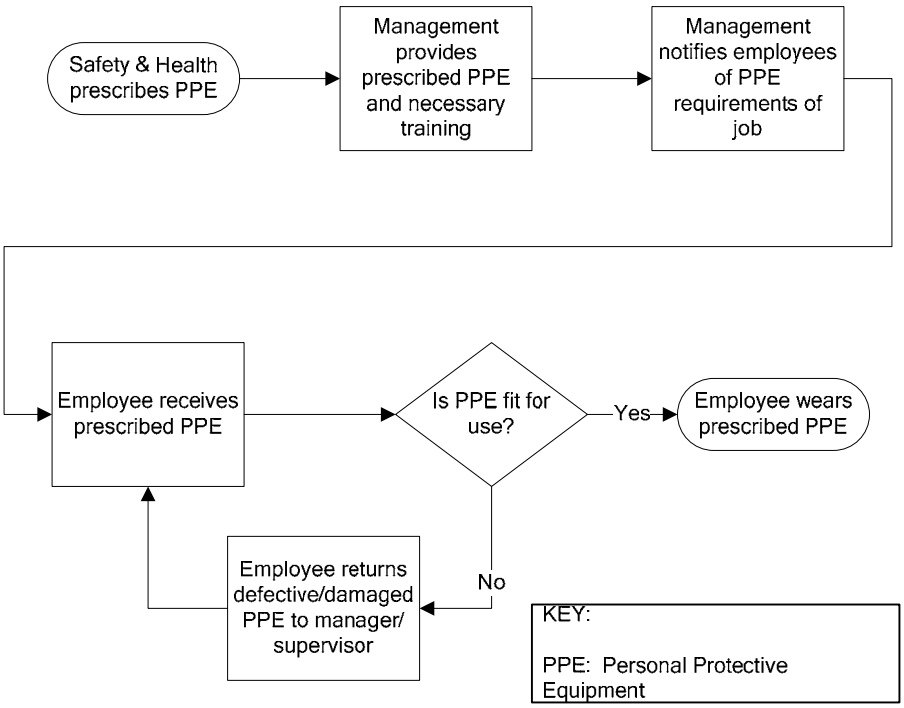
10. TFC-OPS-MAINT-C-01, "Tank Farm Contractor Work Control."

11. TFC-OPS-MAINT-C-02, "Pre-Job Briefing."

12. TFC-OPS-OPER-C-13, "Technical Procedure Control and Use."

13. RPP-34147, "Tank Waste Dermal Exposure Assessment."

Figure 1. PPE Process.



ATTACHMENT A – PPE SELECTION CRITERIA AND GUIDANCE

1.0 GENERAL

1.1 Hazardous Condition Assessment

Hazard conditions requiring PPE are categorized below by area of body protected. This information is to serve as general guidance as to the hazard assessed. The safety/health professional will make final decisions as to the appropriateness of PPE for a given situation.

2.0 EYE/FACE PROTECTION

2.1 Hazardous Condition

Protection is required where there is a potential for injury from flying particles, molten metal, liquid chemicals, acid or caustic liquids, chemical gases or vapors, potentially injurious light radiation, or a combination of these.

For performance of chipping or grinding, face shields are to be worn.

2.2 Selection/Use Criteria

Protection will conform to specifications of American National Standards Institute (ANSI) Standard Z87.1, "Practice for Occupational and Educational Eye and Face Protection."

All safety glasses must have side protection that provides side impact resistance. Side protection may be an integral part of the frame or lens, or a separate side shield permanently attached to the frame.

Employees are eligible for one pair of prescription safety glasses every 24 months (on an as-needed basis) while under CH2M HILL employment. Purchase of safety glasses for construction, services, or task based subcontractors is the responsibility of that subcontractor. Subcontractors are required to comply with the same CH2M HILL requirements for use of protective equipment.

Safety glasses can be obtained through the existing P-Card procurement process noted in TFC-BSM-CP_CPR-C-01.

NOTE: The terminology "on an as-needed basis" implies that the eyewear shows sufficient signs of normal wear-and-tear, or the result of an optical examination evidences a vision change necessitating a revised prescription.

Exception 1: Additional replacement or repair costs during a 24-month period will be covered by CH2M HILL (with manager approval) for prescription safety glasses that have been damaged as a result of a task-related incident occurring during the course of job performance.

Exception 2: Additional replacement costs during a 24-month period will be covered by CH2M HILL (with manager approval) when the result of an optical examination reveals a change in vision necessitating a change in corrective lens.

ATTACHMENT A – PPE SELECTION CRITERIA AND GUIDANCE (cont.)

2.3 Prescription Safety Eyewear (Safety Glasses) Program

Ordinary prescription eyewear does not provide adequate protection from injury to the eyes from impact hazards, and does not meet ANSI Z87.1 eye protection specifications. Therefore, it is the policy to provide protective prescription eyewear to qualified active employees who need corrective lenses for vision and whose job routinely requires the use of safety eyewear for protection.

Transition lenses may be authorized, but only for employees who do not operate equipment between indoor and outdoor locations, or who are not otherwise involved in activities requiring critical acuity (fast reaction to visual stimuli).

NOTE: The rate at which it takes for a tint change to occur in transition lenses is not instantaneous (e.g., it may take a minute for the fading process to occur), and may present a hazard to workers moving from outdoor light to areas of lower illumination (e.g., indoors).

Tinted lens safety glasses are authorized only as follows: No. 1 or 2 rose for indoor use (where additional glare protection is needed); No. 2 gray for outdoor use (where filtering of bright light (e.g., sunlight) is needed).

NOTE: No. 2 gray lenses are basically “sunglasses” and are not intended for indoor usage. A UV coating may be requested when ordering prescription safety eyewear with glass lenses. To ensure worker protection, an employee may be issued non-prescription eyewear for use over the top of their regular street-wear prescription glasses until prescription safety glasses are ordered and received.

Full-face respirators present a unique situation for employees who need prescription glasses. The use of special glasses and mounts inside the face piece of the respirator may be necessary to provide/maintain an adequate seal. When an employee’s prescription eyewear will not fit into a full-face respirator with the appropriate mounts, the ordering of custom prescription optical inserts that are compatible with the respirator will be processed as directed in the Purchasing Card (P-Card) procedure TFC-BSM-CP_CPR-C-01. When an employee must wear optical inserts as part of the face piece, the face piece and lenses shall be fitted by qualified individuals to provide good vision, comfort, and a gas-tight seal.

3.0 HEAD PROTECTION

3.1 Hazardous Condition

Protection is required where there is a potential danger of head injury due to the hazards of falling or flying objects, electrical shock, or burns.

ATTACHMENT A – PPE SELECTION CRITERIA AND GUIDANCE (cont.)

3.2 Selection/Use Criteria

- Shall conform to the specifications of ANSI Z89.1 and be non-conductive
- Shall be worn only as designed (e.g., do not wear backwards unless certified by the manufacturer to be worn in this manner)
- Hard hats shall be worn in a manner that prevents objects from being placed between the top of the hard hat suspension and the inner shell of the hard hat. It is an acceptable practice to wear garments or similar articles on the head so long as they do not intrude into the open space between the hat's suspension and the shell of the hat. Acceptable head wear items include items such as fleece liners, zero hoods, kerchief, bandannas, respirator face pieces, welder's caps, and similar close form fitting articles.
- Shall not be painted.
- Hardhats shall be replaced every 5 years* or when warranted by:
  - Cracks appear in the shell
  - Shiny surface appears dull or chalky
  - Shell becomes brittle
  - The hard hat has fallen from an elevation
  - If the wearer is involved in an impact accident.

  *Refer to manufacture date molded inside hard hat to determine expiration date.

4.0 HAND PROTECTION

4.1 Hazardous Condition

Protection is required where there is a potential for hand injury due to exposure to such hazards as: skin absorption of harmful substances, severe cuts or lacerations, severe abrasions, punctures, chemical burns, thermal burns, or harmful temperature extremes.

4.2 Selection Criteria

Selected based on published product performance characteristics, degree of dexterity required to perform the work/task, and the appropriate application for protection against the hazard(s) identified.

ATTACHMENT A – PPE SELECTION CRITERIA AND GUIDANCE (cont.)

5.0 FOOT PROTECTION

5.1 General Footwear

5.1.1 Hazardous Condition

For work environments with little to no specific foot hazards (e.g., office/administrative locations where access is provided by paved walkways and paved parking lots) general footwear (street shoes) is acceptable. Footwear should be appropriate to the job and work tasks to be performed.

5.1.2 Selection Criteria

General footwear is not intended to meet specific safety requirements; however, footwear should be selected with an appreciation for the nature and environment of the work activity. Street shoes can be soft materials but foam and similar soft-soled shoes such as flip-flops, thongs, or beach-type footwear are prohibited. If the job duties or location require use of gravel paths or entry into other non-office work areas, then substantial shoes are required.

5.2 Substantial Footwear

5.2.1 Hazardous Condition

Substantial footwear is (work boot or shoe) to be worn in all non-office/administrative work areas where protective footwear is not required. Substantial footwear requirements exist in unpaved areas around facilities (including parking lots), and administrative/office type environments located near shop/maintenance/operating areas.

Footwear shall have non-slip soles and traction patterns for exposure to snow and ice conditions.

5.2.2 Selection Criteria

Substantial footwear is footwear (shoe or boot) with sturdy construction that fully encloses the foot and has a semi-rigid, gripping, non-slip sole pattern. It excludes high heels, open toes, open heels, moccasins, sandals, and flip-flops.

The cost for purchase of substantial footwear will be borne by the employee.

5.3 Protective Footwear

5.3.1 Hazardous Condition

Where there is an increased danger of foot injury; when carrying or handling materials such as packages, objects, parts or heavy tools, that could be dropped; where there is the potential for falling/rolling objects; where sharp objects such as nails, wires, tacks, screws, large staples, or scrap metal could be stepped on piercing the sole; or where there is the potential for foot exposure to an electrical hazard; protective footwear shall be required.

ATTACHMENT A – PPE SELECTION CRITERIA AND GUIDANCE (cont.)

5.3.2 Selection Criteria

Safety rated footwear (e.g., safety shoes with steel or hard toes) shall conform to the specifications of ASTM F2413-05 Standard Specification for Performance Requirements for Foot Protection (formerly American National Standards Institute (ANSI) Standard Z41, "American National Standard for Personal Protection-Protective Footwear" for its performance criteria).

NOTE: On March 1, 2005, ANSI Z41 was withdrawn and replaced by then new American Society of Testing Material (ASTM) International Standards. New rated footwear will contain the ASTM identification labeling. Older rated footwear may still have the ANSI Z41 Pt99 labeling. Either is acceptable.

Over the ankle protective footwear is required due to the prevalence of uneven walking/working surfaces and the gravel terrain in and around the tank farms.

All protective footwear shall be safety shoes or boots composed of leather and a defined heel with over the ankle protection, meeting, at a minimum, impact and compression resistance as noted below and any of the other categories of protection as defined by the employee job description. This excludes athletic type protective shoes.

- **Impact- and compression- resistant**, which uses a steel or nonmetallic toe cap to protect against falling objects or crushing from heavy rolling objects. (NOTE: A non-metallic toe cap of molded polymer or fiberglass composite will not activate metal detectors). The level of impact and compression protection correlating to 75 foot-pounds of force (Class 75 rating) is required. (I = Impact; C = Compression).

- **Metatarsal**, which provides similar protection against falling objects to the area of the foot between the ankle and the toes. (MT = Metatarsal).

- **Puncture-resistant**, where the mid-sole, usually comprised of steel, resists penetration from sharp objects; such as nails or broken glass. (PR = Puncture Resistant).

- **Electrical hazard**, where the non-conductive sole and heel of the shoe or boot is designed to protect workers from electric shock from 600 volts AC or less, under dry conditions. (EH = Electrical Hazard).

ATTACHMENT A – PPE SELECTION CRITERIA AND GUIDANCE (cont.)

EXAMPLE: The following are examples of ANSI code inscriptions on a piece of protective footwear:

- ASTM F2413-05 or ANSI Z41 PT 99
- FI/75 C/75 MT/75
- Cd 1 EH
- PR.

Line #1: ASTM F2413-05 or ANSI Z41 PT99. This line identifies the ASTM F2413-05 international standard or ANSI Z41 standard. The 05 indicates the year of the ASTM standard, or the letters PT indicate the protective section of the ANSI standard. This is followed by the last two digits of the year of the standard with which the footwear meets compliance (1999).

Line #2: FI/75 C/75 MT/75. This line identifies the applicable gender (M or F; here it is F) for which the footwear is intended. It also identifies the existence of impact resistance (I), the impact resistance rating (75 foot-pounds). This line can also include a metatarsal protection designation (MT) and rating (75 foot-pounds).

Lines #3 & 4: Cd 1 EH; PR. This area of the label designates conductive properties (Cd) and type (1 or 2), electrical hazard (EH) and puncture resistance (PR), if applicable.
The protective identification ANSI code will be legible (imprinted, stamped, stitched, etc.) on at least one shoe of each pair.

Safety shoes/boots can be obtained as directed in the Purchasing Card (P-Card) procedure TFC-BSM-CP_CPR-C-01 and by completing and submitting Hanford site form A-6003-769. The manager approving the purchase is responsible for determining that the end user requires the safety footwear being requested for performance of task assignments, ensures that the appropriate blocks are checked on the site form, and verifies that the transaction made by the employee is in compliance with CH2M HILL policy.

Employees under CH2M HILL employment are eligible for a new pair of ANSI-approved safety shoes/boots initially, and every twelve months thereafter. This 12-month protective footwear replacement frequency may be applied only where the shoe or boot shows sufficient signs of wear and tear to necessitate replacement. Purchase of protective footwear for construction, services, or task-based subcontractors is the responsibility of that subcontractor. Subcontractors are required to comply with the same CH2M HILL requirements for use of protective equipment.

6.0 CHEMICAL PROTECTION

6.1 Particulate

6.1.1 Hazardous Condition

Where particulate material constitutes a contact hazard from the chemical composition of the particulate (e.g., sodium hydroxide solid, beryllium).

ATTACHMENT A – PPE SELECTION CRITERIA AND GUIDANCE (cont.)

6.1.2 Selection Criteria

Barrier fabrics not damaged by the chemical constituents of the particulate that prevent particulate contact with the skin should be selected.

6.2 Liquid

6.2.1 Hazardous Condition

Where the chemical composition known, anticipated or suspected workplace liquids constitutes a skin contact and/or absorption hazard (e.g., sulfuric acid, methyl isobutyl ketone).

6.2.2 Selection Criteria

Barrier fabrics impermeable to the hazardous chemical constituents of known, anticipated, or suspected workplace liquid hazards shall be selected. Garment selection will be based on chemical constituents found in the work environment, concentrations of those chemical constituents, published product performance characteristics, degree of mobility required to perform the work/task, and the appropriate application for protection against the hazard(s) identified.

6.3 Tank Waste and Tank Condensate

6.3.1 Hazardous Condition

Some of the chemicals in tank waste and tank condensate can damage the skin (i.e., corrosive), irritate the skin (i.e., dermatitis), or be absorbed through the skin. Industrial Hygiene should be consulted in the work planning process.

6.3.2 Selection Criteria

- General tank waste work. For most tank waste work (waste form wet or dry) on tanks listed in Table 1, standard protective clothing is adequate. Standard protective clothing is long-sleeve cotton or Orex anti-C's, gloves (e.g., leather, canvas anti-C, rubber anti-C, or nitrile, as appropriate) and eye protection. ~~Latex gloves used as outer layer is not sufficient.~~ Barrier fabrics impermeable to liquids will be selected for wet/liquid waste.

- Insufficient information. Some tanks have not been adequately sampled for chemical composition of tank waste. For tanks not listed in Table 1, a chemical exposure hazard analysis will be done per TFC-PLN-34 to determine the type of skin protection that will be used when personnel may contact tank waste or tank condensate.

ATTACHMENT A – PPE SELECTION CRITERIA AND GUIDANCE (cont.)

Table 1. Tanks Not Requiring Silvershield PPE.

241-A-101	241-BX-104	241-SX-102
241-A-102	241-BX-105	241-SX-103
241-AN-101	241-BX-107	241-SX-104
241-AN-102	241-BX-109	241-SX-105
241-AN-103	241-BX-110	241-SX-106
241-AN-104	241-BX-111	241-SX-108
241-AN-105	241-BX-112	241-SX-113
241-AN-106	241-BY-101	241-SX-115
241-AN-107	241-BY-102	241-SY-101
241-AP-101	241-BY-103	241-SY-102
241-AP-102	241-BY-104	241-SY-103
241-AP-103	241-BY-105	241-T-102
241-AP-104	241-BY-106	241-T-104
241-AP-105	241-BY-107	241-T-105
241-AP-106	241-BY-108	241-T-107
241-AP-107	241-BY-109	241-T-109
241-AP-108	241-BY-110	241-T-111
241-AW-101	241-BY-111	241-T-112
241-AW-102	241-BY-112	241-T-201
241-AW-103	241-C-101	241-T-202
241-AW-104	241-C-102	241-T-203
241-AW-105	241-C-103	241-T-204
241-AW-106	241-C-104	241-TX-104
241-AX-101	241-C-105	241-TX-113
241-AX-102	241-C-106	241-TX-116
241-AX-103	241-C-107	241-TX-118
241-AX-104	241-C-108	241-TY-104
241-AY-101	241-C-109	241-TY-106
241-AY-102	241-C-110	241-U-102
241-AZ-101	241-C-111	241-U-103
241-AZ-102	241-C-112	241-U-105
241-B-101	241-C-201	241-U-106
241-B-102	241-C-202	241-U-107
241-B-103	241-C-203	241-U-108
241-B-104	241-C-204	241-U-109
241-B-106	241-S-101	241-U-110
241-B-107	241-S-102	241-U-111
241-B-108	241-S-103	241-U-112
241-B-109	241-S-104	241-U-201
241-B-110	241-S-105	241-U-202
241-B-111	241-S-106	241-U-203
241-B-201	241-S-107	241-U-204
241-B-202	241-S-109	
241-B-203	241-S-110	
241-B-204	241-S-111	
241-BX-101	241-S-112	
241-BX-103	241-SX-101	

ATTACHMENT B – LEVELS OF PPE

1.0 LEVEL D PERSONAL PROTECTIVE EQUIPMENT

Level D PPE is the minimum basic level of personal protection equipment used in the tank farms or areas or operations where no air contaminants are present that would require respiratory protection. While en route from one work location to another, modesty clothing is acceptable as the minimum dress. Workers exiting a contaminated area may remove protective clothing at the step-off pad and proceed to the change trailer in modesty clothes. No work may be performed in modesty clothing. Specific PPE requirements will be determined by hazards associated with the work activity and may be used as appropriate:

- Coveralls and/or street clothes - covering the legs and shoulders
- Anti-contamination clothing (as required by Health Physics if radiological hazards exist)
- Safety glasses or goggles
- Substantial footwear or protective footwear as defined by location, activity or JHA
- Hard hat
- Hearing protection
- Gloves.

2.0 LEVEL C PERSONAL PROTECTIVE EQUIPMENT

Level C PPE is required where airborne contaminant levels are known or characterized, and a potentially hazardous atmosphere exists. Use of Level C PPE is not permitted in oxygen-deficient atmospheres (less than 19.5 percent oxygen), for contaminants with poor warning properties (odor detection level is greater than the threshold limit value), or when contaminant concentrations exceed the respirator limits. Atmospheric contaminants will not adversely affect the skin or be absorbed through exposed skin. Personnel working inside the tank farms and wearing Level C PPE may wear the following as appropriate:

- Full-face air-purifying respirator (with appropriate filters and/or canisters and appropriate prescription eye wear without temple bars)
- Disposable chemical-resistant coveralls
- Anti-contamination clothing (as required by Health Physics if radiological hazards exist)
- Protective footwear
- Chemical-resistant shoe covers
- Hard hat
- Inner chemical-resistant gloves (impervious to chemical agent of interest)
- Outer chemical-resistant gloves (impervious to chemical agent of interest)
- Hearing protection.

ATTACHMENT B – LEVELS OF PPE (cont.)

3.0 LEVEL B PERSONAL PROTECTIVE EQUIPMENT

Level B PPE is required where airborne contaminant levels are unknown, and a potentially hazardous atmosphere exists. Level B PPE may be used only when it is unlikely that workers will be exposed to high concentrations of contaminants or chemical splashes that will affect the skin or be absorbed by it. Level B is generally the same as Level C, except the respiratory protection is upgraded to air-supplied respirator or self-contained breathing apparatus (SCBA). Personnel working inside the tank farms with designated Level B PPE may wear the following as appropriate:

- Air-supplied respirator or SCBA
- Disposable chemical-resistant coveralls
- Protective footwear
- Chemical-resistant shoe covers
- Hard hat
- Inner chemical-resistant gloves (impervious to chemical agent of interest)
- Outer chemical-resistant gloves (impervious to chemical agent of interest)
- Hearing protection.

4.0 LEVEL A PERSONAL PROTECTIVE EQUIPMENT

Level A PPE is required where atmospheric conditions are immediately dangerous to life and health (IDLH). In rare circumstances, it may be necessary for personnel in the tank farms to wear Level A PPE. Level A PPE has the same maximum respiratory protection as Level B; however, the highest available skin and eye protection are required for Level A. Personnel working inside the tank farms with designated Level A PPE may wear the following as appropriate:

- Air-supplied respirator or SCBA
- Fully encapsulating, chemical-resistant suit (suit material must be compatible with substances involved)
- Coveralls
- Protective footwear
- Chemical-resistant shoe covers
- Hard hat
- Inner chemical-resistant gloves
- Hearing protection.